

# CHAPTER 2 – RULES AND REGULATIONS FOR USE OF RECYCLED WATER

## 2.1 GENERAL REQUIREMENTS AND CONDITIONS

### 2.1.1 Introduction

The City is dependent on imported water for domestic, agricultural, and industrial uses. This imported supply is considered limited and its future reliability uncertain. In addition, transport of this water requires tremendous energy input which contributes a considerable portion of the total cost to the end user. It is in the best interest of the City to promote and implement innovative water management strategies to conserve water and energy resources while still satisfying water needs of the City customers.

The City operates and maintains a recycled water distribution network throughout its service area enabling it to provide tertiary treated recycled water for a variety of beneficial uses. This alternate supply allows large quantities of higher quality potable water to be made available for domestic use.

The use of water recycled from municipal wastewater is regulated by the California Regional Water Quality Control Board (RWQCB). California Water Code Section 1351 establishes a state policy to encourage the use of recycled water. Permission to use recycled water is based on the ability to adequately treat domestic wastewater to the point that the recycled water (effluent) meets the requirements of existing Title 22, Chapter 3 regulations of the California Administrative Code. Title 22 was promulgated by the State Department of Health Service to ensure proper health protection and specify the treatment degree to match the intended applications.

In accordance with waste discharge requirements for water recycling projects, the RWQCB requires that Rules and Regulations for facilities using recycled water be established.

#### A. Purpose

The purpose of these Rules and Regulations is to establish procedures, specifications, and limitations for the safe and orderly development and operation of recycled water facilities and systems in the City serviced area.

#### B. Goals

1. Achieve conservation of potable water supplies by using recycled water for the maximum public benefit.
2. Prevent direct human consumption of recycled water through:
  - Adherence to all applicable rules and regulations
  - Posting of warning signs by the user
  - Cross-connection/backflow prevention program
3. Control runoff of recycled water through monitoring of the installation and operation of all recycled water facilities and use areas.



C. Policy

It is the policy of the City that recycled water be used for any purposes approved for recycled water use, when it is economically, financially, and technically feasible, as mandated by Ordinance No. 31. Use of potable water for non-domestic uses shall be contrary to District policy, shall not be considered the most beneficial use of a natural resource and shall be avoided to the maximum extent possible.

**2.1.2 Service Area**

These Rules and Regulations pertain to recycled water service to lands and/or improvements lying within the legal boundaries of the City of Carlsbad unless otherwise stated. The District shall provide recycled water service in accordance with these Rules and Regulations to all areas identified in the Carlsbad Water Reclamation Master Plan, including all subsequent revisions for the use of recycled water. Recycled water service shall be provided to the service area when related distribution facilities are completed and service becomes available.

**2.1.3 Determination of Recycled Water Use Area**

A. General

1. The City may adopt a Water Reclamation Master Plan (Master Plan) designating current and potential areas for recycled water use. The Master Plan shall be in accordance with all regulatory agencies and encourage recycled water use. The Master Plan may be reviewed and updated as needed.
2. The City may review its Master Plan and recommend where water service should be made with recycled water in place of potable water. Where it is determined recycled water is, or will be available within five years, the City may request modifications to existing on-site water facilities and require construction of recycled water systems in new developments.
3. The City may enter into agreements with cities and/or other water agencies to determine recycled water use areas within the service area/jurisdiction of those entities.

B. Existing Potable Water Service

1. Upon adoption of these Rules and Regulations, and each update of the Master Plan, the City may make determinations of areas where existing water use should be with recycled water.

C. New Recycled Water Service

Upon submittal by applicant of a tentative map, land use permit, or request for recycled water service, the City shall review the Master Plan and make preliminary determinations if recycled water service should be provided to the area of question.



#### **2.1.4 Authorized Uses**

In accordance with the goals of the City, as stated in these Rules and Regulations, the uses of recycled water include only those uses approved by the California State Department of Health Services (DOHS) and for which Title 22 of the California Administrative Code provides treatment requirements. Each such use will be considered for approval on a case-by-case basis. Prior to approval and at its discretion, the City may set forth specific requirements as conditions to providing service and/or require specific prior approval from the appropriate regulatory agencies.

#### **2.1.5 Conditions of Service**

Recycled water service shall be provided by the City only if approval for such service is obtained in the manner provided in these Rules and Regulations. Recycled water service shall be available, provided, and used in accordance with other codes, rules and regulations as listed in Sections 2.1.6 and 2.1.7.

If any of the following conditions of service are not satisfied at all times, Recycled Water Service may be revoked by the City after which all recycled water service shall cease. Connection to a potable water system will not be allowed.

##### **A. Financial**

Conditions relating to service fees and billing shall be the same as established for the potable water system. Rates for recycled water service shall be decided by the agency.

##### **B. Operational**

###### **1. Liability:**

The City shall not be liable for any damage by water or resulting from:

- defective plumbing
- broken or faulty services of recycled water mains
- onsite facilities failures
- high or low pressure conditions
- interruptions of service

###### **2. Service Basis:**

All recycled water will be provided to the user in the conditions and quantity specified in the Water Service Agreement. Recycled water use will not be subject to the same restrictions as potable water during drought conditions.

The following guidelines have been established by the Carlsbad Municipal Water District (CMWD) in conjunction with the San Diego County Department of Environmental Health (DEH) Department. They are intended to provide the basic parameters for the use of recycled water in landscape irrigation. To operate your system in compliance with these guidelines you must:

- a. Irrigate between the hours of 10:00 p.m. and 6:00 a.m. only. Watering outside this timeframe must be done manually with qualified supervisory personnel on site. No system shall at any time be left unattended during use outside the normal schedule.



- b. Irrigate in a manner that will minimize run-off, pooling and ponding. The application rate shall not exceed the infiltration rate of the soil. Timers must be adjusted so as to be compatible with the lowest soil infiltration rate present. This procedure may be facilitated by the efficient scheduling of the automatic control clocks, (i.e., employing the repeat function to break up the total irrigation time into cycles that will promote maximum soil absorption).
- c. Adjust spray heads to eliminate overspray onto areas not under the control of the customer. (pool decks, private patios, streets and sidewalks, etc.)
- d. Monitor and maintain the system to minimize equipment and material failure. Broken sprinkler heads, leaks, unreliable valves, etc., should be repaired as soon as they become apparent.
- e. Educate all maintenance personnel on a continuous basis of the presence of recycled water. Personnel must be informed that recycled water is meant for irrigation purposes only, and is not approved for drinking purposes, hand washing, cleaning of tools, etc. Given the high turnover rate of employees in the landscaping industry, it is important this information be disseminated on a frequent basis. The landscape contractor is solely responsible for educating each and every one of his employees.
- f. Obtain prior approval of all proposed changes and modifications to any private facilities. Such changes must be submitted to and approved by, the CMWD and DEH and designed in accordance with District Standards.
- g. An annual inspection will be done by the Carlsbad Municipal Water District. Copies of inspection reports will be forwarded to the DEH.
- h. An on-site user/supervisor shall be designated in writing. This individual shall be familiar with plumbing systems within the property, with the basic concepts of backflow/cross connection protection, and the specific requirements of a recycled water system. Copies of the designation, with contact phone numbers shall be provided to the San Diego County Department of Health Services and the Carlsbad Municipal Water District.

In case of emergency contact:

\_\_\_\_\_ @ \_\_\_\_\_  
 (Fill in) (Name) (Tel. No.)

Or after hours contact:

\_\_\_\_\_ @ \_\_\_\_\_  
 (Fill in) (Name) (Tel. No.)

Failure to comply with any or all of the above guidelines is a violation of the District's Rules and Regulations, and will result in termination of service until the appropriate corrective steps have been taken.



### **2.1.6 California Regional Water Quality Control Board Conditions**

- A. "Provision will be made authorizing the Regional Board, the producer, the purveyor, or an authorized representative of these parties, upon presentation of proper credentials, to inspect the facilities of any recycled water user to ascertain whether the user is complying with the purveyor's rules and regulations.
- B. "Provision will be made requiring recycled water users to designate a recycled water supervisor responsible for the recycled water system at each use area under the user's control. Recycled water supervisors should be responsible for the installation, operation, and maintenance of the irrigation system, enforcement of the purveyor's recycled water user rules and regulations, prevention of potential hazards, and maintenance of the recycled water distribution system plans in "as built" form." (Per Order No. 2001-352).
- C. "Notification shall be given to recycled water users that the CMWD may initiate enforcement action against any recycled water user who discharges recycled water in violation of any applicable discharged prohibitions prescribed by the Regional Board or in a manner which creates, or threatens to create conditions of pollution, contamination, or nuisance, as defined in California Water Code Section 13050."
- D. "Notification shall be given to recycled water users that the Regional Board may initiate enforcement action against the purveyor, which may result in the termination of the recycled water supply, if any person uses, transports, or stores such water in violation of the purveyor's rules and regulations or in a manner which creates conditions of pollution, contamination, or nuisance, as defined in California Water Code Section 13050."
- E. "Pursuant to the Regional Board Regulations, a provision requiring all recycled water storage facilities owned and/or operated by recycled water users shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency, except as authorized by the Regional Board Executive Officer." (per Section C.1.j. of Order No. 91-60).
- F. "Provisions shall be made requiring all recycled water storage facilities owned and/or operated by recycled water users to be protected against erosion, overland runoff, and other impacts resulting from a 100-year frequency, 24-hour storm, except as authorized by the Regional Board Executive Officer." (per Section D.1.k. of Order No. 91-60).

### **2.1.7 Other Applicable Codes, Rules, and Regulations**

- A. Other applicable guidelines, rules and regulations, ordinances, specifications that govern the use of recycled water within the City include:



Agency/Organization	Document #	Document Title
California Dept. of Health Services	Title 22 Division 4	Wastewater Reclamation Criteria
California Dept. of Health Services	Title 17	Regulation Relating to Cross-Connections
California-Nevada Section American Water Works Association	-	Guidelines for Distribution of Nonpotable Water
Foundation for Cross-Connection Control and Hydraulic Research, School of Engineering University of Southern California	-	Manual of Cross-Connection Control
State of California		California Plumbing Code

## 2.2 ADMINISTRATIVE REQUIREMENTS

### 2.2.1 Application Process

A completed application for recycled water service must be submitted to the District by the owner, or authorized representative of the property which is intended to be served with recycled water. District approval shall be in addition to any other permits and conditions required by other regulatory agencies.

The District shall furnish the application form upon request by prospective users.

#### A. Applicant Information

1. The applicant shall supply information concerning:
  - Applicant's relationship to the subject property as legal owner, tenant, or lessee
  - Description of recycled water use on the property
  - Legal description of property
  - Technical information (listed on the application form)
  - Total irrigated areas
  - Special conditions (other items that could be of concern when using recycled water)
  - A drawing of the property on one, 8-1/2 x 11 paper sheet, include/show:
    - Location of service connection, recycled and potable water main lines
    - Size of service connection
    - Use of area location
  - Areas to be served with recycled water and areas excluded from recycled water service
  - A brief description of all special construction requirements
2. The applicant shall state by signature on the application form that he agrees to comply with these rules and regulations and any and all other applicable governing documents.



B. Application Package

1. Completed application form
2. Required drawing(s)
3. Required fees and deposits

C. Application Review

Upon receipt of a completed application package, the District shall review the material and respond within 45 calendar days of receipt of the application package. The District may request additional information it deems necessary. The District shall determine if the property to be served is in a suitable area for recycled water use, and if the necessary quantity and quality of recycled water can be made available to the applicant. The District may prescribe specific requirements for service which may concern:

1. Additional facilities to be constructed
2. Manner of construction
3. Financial responsibility
4. Use of recycled water

D. Application Approval

Upon successful completion of its review, the District shall submit the application package to the County of San Diego Department of Environmental Health and the State Department of Health Services for their approval.

Upon approval of the application package by the San Diego County DEH and the State Department of Health Services, the applicant will be requested to submit detailed construction plans (blueprints), the construction schedule and pay required fees to the City.

**2.2.2 Conditions For Recycled Water Use**

District approval, in the form of an agreement or permit, for Recycled Water Service shall be obtained by the user prior to receiving recycled water on any property.

Permits/Agreements to receive recycled water service shall be subject to the following conditions:

- A. The applicant shall adhere to requirements prescribed by these rules and regulations and to all additional requirements prescribed by all governing agencies pertaining to recycled water service.
- B. The applicant shall pay specified connection fees, service line charges and other charges prior to issuance of the permit.
- C. In order to maintain acceptable working conditions throughout the recycled water system, the District may schedule operational hours for recycled water use. Such scheduling may involve programming deliveries to different users and/or to various portions of a single applicable constraint of all involved regulatory agencies, these Rules and Regulations, and the operating constraints of the affected users.



- D. The District may temporarily suspend recycled water service at any time the recycled water quality at the District recycling plant does not meet the requirements of the regulatory agencies. Recycled water service would, in such case, be restored when the recycled water meets the governing requirements at the terminal point of the treatment plant. The District may provide recycled water service from other approved sources. In addition, the District may provide potable water to the recycled water system to improve water reliability, but is not required to do so.
- E. The District may apply for and process all applicable regulatory agency permits. The cost and preparation of any study or report necessary to comply with the California Environmental Quality Act (CEQA) or other regulatory requirements shall be the responsibility of the applicant.
- F. The use permit or agreement shall come into force after the project has been completely constructed, tested, and been approved by the involved agencies.
- G. A copy of the current permit or agreement must be available for review at all times, clearly visible at the use site, and on file at the user's office.
- H. The use permit or agreement shall include the following:
  - 1. Name and address of owner and user
  - 2. A statement that no changes in the proposed system will be undertaken without application for and issuance of an amended agency permit
  - 3. A statement that the applicant recognizes potential penalties for violation of the rules and regulations of the District and any regulatory agencies
  - 4. Specific quantity of recycled water to be used
    - The following must be identified:
      - Average annual HCF used
      - Maximum GPM needed at the POC as shown on the plans
  - 5. Permitted/approved uses
  - 6. Rate(s) charged for recycled water
  - 7. Property location and estimated irrigated areas
- I. The use permit shall stay in effect indefinitely, but shall be canceled if:
  - 1. A change of ownership occurs
  - 2. A change of user occurs
  - 3. A change of recycled water use occurs
  - 4. A violation of these rules and regulations occurs and results in a system turn-offs



### **2.2.3 Contracts/Agreements**

In lieu of a permit, the District may choose to enter into a contract or agreement with the applicant. All contracts for recycled water shall be subject to these Rules and Regulations. No applicant shall be entitled to a contract unless authorized by the District. The terms and conditions of contracts authorized by the District shall be established by the District, in its sole discretion. Each contract must be in writing and be approved by the District to be valid. The District is not obligated by these rules and regulations to approve any contract.

### **2.2.4 Rates, Fees, Charges, Deposits**

#### **A. General**

All rates and fees regarding recycled water service and their administrative costs shall be fixed and established by the District.

Applicants for recycled water service shall pay for the construction of facilities needed to deliver recycled water to the applicant's property. All fees and estimated construction costs shall be paid prior to construction.

#### **B. Change of Rates or Charges**

The District reserves the right to change the schedule of recycled water rates, service charges and any other charges, deposits, or fees at any time. These changes are subject to the terms of any existing recycled water service permits (and/or agreements) and will be made by appropriate action of the Board.

#### **C. Temporary Service**

The recycled water rate for all water sold through temporary meters shall be the same as the construction recycled water rate. The charges for recycled water sold through temporary meters shall be billed and paid on a monthly basis.